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**Finnish Maritime  
Administration**

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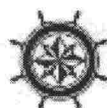
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# **Investments in Finnish ports 1996-2000 and planned investments 2001-2005**



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Sakari Kajander and Tapio Karvonen		research	
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Investments in Finnish ports 1996-2000 and planned investments 2001-2005			
Abstract			
<p>This report gives a broad outline of realized investments between 1996 and 2000 and planned investments between 2001 and 2005 in Finnish ports. This data is based on a survey conducted in 2001 concerning the ports' investments. Corresponding data on the ports' investments has been gathered at five-year intervals since 1980.</p> <p>In addition to the total number of investments, this report also shows the investments' regional distribution and the division of investments between port owners and privately owned companies. The division of investments between ports is also shown. This report contains also comparison with the previous five-year period. Furthermore, the realized and planned investments of the ten largest ports, in terms of investments, will be discussed in broad outlines.</p> <p>Between 1996 and 2000 the investments in Finnish ports totalled EUR 457.9 million, i.e. on average EUR 91.6 million annually. 95 % of the investments was made in the public ports on the Finnish coast. The investments were heavily concentrated on few ports. Most investments were made to the ports of Helsinki, Kotka and Rauma.</p> <p>The investments planned for the period 2001-2005 in Finnish ports total EUR 338.8 million, i.e. on average EUR 91.6 million annually. This figure is clearly smaller than corresponding figure for the previous five-year period. But we have to take into account that the planned investments for the port of Helsinki are not included in this estimation because the decision-making for possible port of Vuosaari has not yet been concluded. Like the realized investments, the planned investments are also concentrated on few seaports. The largest investment plans have been given by the ports of Kotka and Rauma.</p> <p>The investment plans of the companies operating inside ports are roughly in the same lines as in the previous period. They will be investing primarily in cargo handling equipment.</p>			
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## Foreword

The Finnish Maritime Administration (FMA) and, previously, the National Board of Roads and Waterways have regularly collected data concerning realized and planned investments in Finnish ports. This has been made at five-year intervals since 1980. FMA ordered this report from the Centre for Maritime Studies, University of Turku. The data of this report is based on the answers received from a survey that was sent to ports. Researchers Sakari Kajander and Tapio Karvonen, from the Centre for Maritime Studies, have been responsible for the realization of this project in practice.

This report, which is based on the collected material, gives a broad outline of recent developments and future investment plans in the Finnish ports. As far as the investment plans are concerned, it should be born in mind that the plans are highly dependent on the overall traffic development in the ports as well as on the overall development in economy. The plans have to be adopted accordingly. Therefore, it is difficult to present absolute figures on forthcoming investments. The figures shown in the report do, however, give an indication of the future development in general terms.

The Finnish Maritime Administration and the Centre for Maritime Studies, University of Turku, wish to express their gratitude to the ports and to the companies operating inside these ports for their active participation in the survey.

Turku, 14<sup>th</sup> of December 2001

Juhani Vainio  
Director  
Centre for Maritime Studies  
University of Turku

## **REALIZED AND PLANNED INVESTMENTS IN FINNISH PORTS 1996-2005**

### **Structure of survey**

The structure of this survey is the same as in the previous survey conducted between 1996 and 1997. Both investments made by port owners and investments made by companies providing port services were inquired separately in the questionnaire.

The investments have been sub-divided into the following categories, describing the nature of the investment in question:

- dredging
- quays
- storage areas, roads within the port area, municipal engineering
- storage buildings and –constructions
- cargo handling equipment
- other

The privately owned companies' investments have been categorized as follows: storage buildings, cargo handling equipment and others.

The investments in the survey have been divided into two periods: port investments realized between 1996 and 2000, and investments planned for the period 2001-2005. Both realized and planned investment amounts have been given separately for every year.

In addition to the investment figures, respondents were asked in the questionnaire to give a short description of the most significant investments realized or planned, in other words, what has been done in the port and what they have planned to do.

This survey has focused on the port infrastructure inside the port area.

In this report, the realized investments from the period 1996-2000 are expressed in figures adjusted to the 2000 level with the wholesale price index. The figures have been changed for both realized and planned investments to euros.

## Participation in survey

The survey was sent to 30 municipally-owned public ports, including general ports of Hamina and Kotka that are in the form of a joint stock company and car ferry ports of Eckerö and Långnäs in the Åland islands, and to 23 privately owned industry ports.

The survey was carried out in two lots of questionnaires. The questionnaires were sent to general ports and to few larger industry ports in June 2001. The questionnaires sent in this first lot also included questions about liner service connections inside Europe and realized or planned improvements in the inland transport links, in addition to the questions about investments. A summary, that is based on the information received from these questionnaires, was utilized in a study, ordered by the Finnish Ministry of Transport and Communications, on the improvement possibilities of sea and inland waterways.

The questionnaire was sent to smaller industry ports at the beginning of November in 2001. At the same time, the questionnaire was resent to those ports that had not given a response in the summer. Furthermore, the questionnaire was sent to few privately owned port operators operating in large general ports because their investment information was not included in the responses sent by the ports.

Altogether, 29 replies were received from public ports and general ports i.e. all but one replied to the survey. The respondents represent over 99.9 % of the total cargo turnover in the 30 public ports in 2000. The industry ports sent altogether 18 replies, so the respondents represent 78 % of this group. The industry ports that did not reply are rather small, in most cases they are units working for just one production plant. It is possible to draw a conclusion, on the basis of the answers received from other similar ports, that these ports have made only very small investments or that the ports have not made any investments at all and consequently these ports did not see answering this survey as necessary. This missing data does not affect the magnitude of the total investment figures in Finland's ports.

All the respondents represent 89 % of the ports. The ports that replied represented 98 % of the total turnover of tons in Finland's international transport in 2000. In other words, the survey's coverage and representativeness were very good. Shortages were found only in the investment information of privately owned companies operating inside ports.

All the figures represented in this report are based fully on the replies received from the ports.

## Results of survey

In addition to the total number of investments, the data received from this survey also shows the investments' regional distribution and what is the division between port owners and privately owned companies. The latter refers mainly to the port operators operating in public ports. Because the industry ports are privately owned and maintained by companies, the investments made in these ports are placed into the same category as the port owners.

### Port investments in 1996-2000

The investments in Finnish ports during the period totalled EUR 457.9 million, i.e. on average EUR 91.6 million annually. In comparison with the previous period, the port owner's part of this sum has clearly risen and the companies' fallen (annex 1). This is partly due to the different availability of information concerning the companies' investments.

A major part of investments (95 %) was made in the public ports on the Finnish coast (annex 2). The investments made by the coastline ports were divided so that the share of the ports along the Gulf of Finland (Hamina-Hanko) was 45 %, i.e. about EUR 195 million, which is almost as much as in the previous period. The region's share, on the other hand, had fallen slightly. This is emphasized by the fact that, differing from the previous report, Hanko is now correctly situated to its region, the Gulf of Finland. The share of the public ports along Finland's south-west coast (Turku-Pori) was 33 % and the share of the ports in the Gulf of Bothnia (Merikarvia-Tornio) was 22 %. The relative importance of both of these has grown in comparison with the previous period, and the relative importance of Finland's south-west coast has grown in particular (annex 3).



Table 3.1. Summary of port investments 1996-2000 (wholesale price index adjusted to the 2000 level, more detailed presentation in annex 5):

Port category	Port owner (EUR million)	Companies (EUR million)
Public seaports	302,8	128,0
- Gulf of Finland	(142,5)	(52,1)
- South-west coast	(95,5)	(44,4)
- Gulf of Bothnia	(64,8)	(31,5)
Industry seaports	12,4	2,2
Ports of Lake Saimaa	4,5	7,9
- Industry ports	(0,0)	(0,0)
<b>Total</b>	<b>319,8</b>	<b>138,1</b>

In comparison with the investment figures for the period 1991-1995, it can be seen that the investment level is more or less the same during both of these periods (annex 1). On the other hand, there are significant differences in the division of investments according to operators and regions. This applies especially to the public ports along the Gulf of Finland, whose port owners' investments had increased by about EUR 50 million and companies' investments declined by almost EUR 90 million.

In the region of south-west Finland the investments of port owners increased significantly, i.e. by about EUR 17 million. In the region of the Gulf of Bothnia the investments of public ports had increased by about EUR 8 million in comparison with the previous period. On the coastline, the industry ports' investments increased slightly (about EUR 0.3 million) and the investments of the ports of Lake Saimaa declined clearly (about EUR 4.5 million).

The previous investment survey also inquired about planned investments for the period 1996-2000. The realized investments have been about EUR 102.5 million smaller than had been planned. Particularly, the investments of the public ports along the Gulf of Finland (especially the investments of companies) and the investments of the industry ports on the coastline have remained much smaller than planned. Finland's south-west coast's public ports is the only group in which the realized investments were greater than planned in the previous survey.

According to the investment groups, most money has been invested in cargo handling equipment (about EUR 120 million), second position is held by storage buildings (about EUR 91 million) and third largest group is quays



(about EUR 90 million). Investments in quays include also dredging, for some ports did not classify their investments into different groups but gave total investment figures. It should be noticed that the figure of the group *others* and non-classified is big (about EUR 77.5 million).

### The largest investment projects

During this period, altogether EUR 430.8 million investments were made to the public ports on the Finnish coast. This sum is EUR 74.5 million smaller than had been planned in the previous survey for this period in this group of ports. It is important to note that for the privately owned companies information availability was not completely consistent within both of the surveys.

Investments are heavily focused to few ports and nine of these ports differed clearly in this aspect. The investment share of these nine ports was as much as 82.1 % of all the public sea ports' investments.

According to the survey, most investments were made in the port of **Hel-sinki**, altogether EUR 70.9 million. This figure also includes port investments for the planning of the port of Vuosaari during this period.

The amount of investments for the port of **Kotka** has been EUR 56.6 million. The new container terminal in Mussalo has been the most important investment object. This figure does not include the investments of privately owned companies because they were not given in the replies.

The amount of investments for the port of **Rauma** EUR 50.0 million is divided equally between the port owner and the privately owned companies. Among other things, container quay, ro-ro berth and extended bulk quay have been built. The crane purchases have also been remarkable.

The most important objects of investment, for the port of **Hamina**, have been building new quays and their storage areas and also the acquisition of three container cranes. Privately owned companies have invested remarkably in new storage buildings. The total amount of investments was EUR 38.1 million.

For the port of **Turku**, the biggest investment was the construction of a new train ferry port in Pansio between 1997 and 1998. The purchase of a new container crane was also a remarkable investment. This investment was

made at the beginning of this period and partly at the end of the previous period. The total amount of investments was EUR 36.4 million.

The port of **Pori** has invested primarily in the construction of storage areas and development of quays and in the acquisition of cargo handling equipment. During this period, the port owner has purchased five big cranes for handling containers, bulk and timber. The investments totalled EUR 36.0 million.

The amount of investments for the port of **Hanko** was EUR 24.0 million. Most investments have been made to storage areas (including a new ro-ro berth) and for the traffic from Germany by the Superfast shipowner (quay, terminal and dredging). Privately owned companies have invested significantly in storage terminals and in the acquisition of a container crane.

The most important investments for the port of **Oulu** were the construction of a new chemical quay, including dredging, and increase in storage capacity. The investments totalled EUR 22.4 million.

The amount of investments for the port of **Kokkola** totalled EUR 19.5 million. The investments were in connection with the further development of the deep port area and they included every investment category of this survey.

### Planned port investments in 2001-2005

The realized and planned port investments in Finnish ports in 2001-2005 total EUR 338.8 million (on average approx. EUR 67.8 million annually), i.e. they are considerably lower than during the previous five-year period (annex 1).

It is to be noted that this figure does not include the planned investments of the port of Helsinki. The port of Helsinki did not give any figures about their planned investments in their reply because the figures are totally dependent on the decision-making concerning the port of Vuosaari. According to a report<sup>1</sup>, ordered by the Ministry of Transport and Communications, the base investment for the construction of the I stage (finished by 2007) of the port of Vuosaari would be about EUR 202 million, of which almost EUR

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<sup>1</sup> Metsäranta, Heikki (2001). Vuosaaren satamahankkeen yhteiskuntataloudellinen kannattavuuslaskelma (YHTALI). Reports and memorandums of the Ministry of Transport and Communications, B 22/2001. Ministry of Transport and Communications, Helsinki. (report is not available in English)

120 million would be used by 2005. The division of investments between the port owner and others is not shown in this report.

According to plans, almost 90 % of the investments will be made in the public seaports (annex 2). Regionally, most investments will be made in the ports of the Gulf of Finland, but their relative share has declined clearly compared with the previous period (note the missing figures from the port of Helsinki). The greatest change is, in comparison with the previous survey, that the amount of planned investments for the ports in the Gulf of Bothnia has clearly surpassed the amount of investments for the ports along Finland's south-west coast. The investments of the ports in the Gulf of Bothnia have increased steadily during several five-year periods (annex 3).

*Table 3/4 Summary of planned port investments in 2001-2005 (more detailed presentation in annex 6):*

Port category	Port owner (EUR million)	Companies (EUR million)
Public seaports	176,0	127,0
- Gulf of Finland	(47,5)	(67,9)
- South-west coast	(50,6)	(29,7)
- Gulf of Bothnia	(77,9)	(29,5)
Industry seaports	26,8	0,7
Ports of Lake Saimaa	5,4	2,9
- Industry ports	(3,3)	(0,0)
<b>Total</b>	<b>208,2</b>	<b>130,6</b>

The largest investments plans have been reported by the ports of Kotka and Rauma. In both of these ports, the investments are focused on the development of container traffic. The list of ten ports that have reported the largest investments, is roughly the same as in the previous survey.

The ports focus on increasing the efficiency of cargo handling ability in cargo traffic, which is clearly seen, among other things, in growing share of cargo handling equipment investments. The investment share of the capacity of quays and storage areas is also growing. Particularly, a lot of focus is put on the development of the container traffic.

The port owners will invest most in cargo handling equipment and in quays, to both of these categories over EUR 50 million. The greatest growth will be in the dredging category and the second greatest in cargo handling equip-



ment. Investments seem to decline in the following categories: storage areas, roads within the port area, municipal engineering and storage buildings and –constructions (annex 4). It is important to note that the missing figures from the port of Helsinki have to be taken into consideration when comparing the figures with different periods. The possible construction of the port of Vuosaari is, as an investment, in a class of its own.

The amount of planned investments of the companies operating inside ports is quite close to that of the previous period. The cargo handling equipment holds, as usually, the first position in the companies' investment list and investments in cargo handling equipment keep on increasing slightly. Instead, the storage investments are going to be clearly smaller than in the previous period. The cargo handling equipment investments include mainly the acquisition of fork-lift trucks and rubber wheel cranes, partly new additional equipment and partly equipment that is replacing old equipment.

### **The largest investment projects**

The investments planned in public seaports are focused on few important ports. If the port of Helsinki is excluded, the nine largest investment objects' share of the total investments is 79 % in this port group.

The largest investment figures of the ports, that gave their investment plans, were given by the port of **Kotka**, whose planned investments by the year 2005 are EUR 82.4 million. This sum is almost equally divided between the port owner and the privately owned companies. The most important investment objects are the extension of the port of Hietanen and the extension of the container terminal in Mussalo, which is planned to be in operation towards the end of the period.

The planned investments for the port of **Rauma** total EUR 82.4 million. For the port owner, the most important investment objects are the quarry of Sementtimatala taking place in 2001 and the extension of the container quay and the acquisition of a new container crane during the following years.

The planned investments for the port of **Kokkola** are in connection with the further development of the functions of the deep port area and the construction of a new terminal for unitized cargo. The port operator operating in Kokkola has a new owner who is under contract to renew equipment which causes a remarkable rise to the investment level of cargo handling equipment from the beginning of 2002. The total amount of investments is EUR 26.6 million.



The planned investments for the port of **Turku** total EUR 17.5 million. The investments include among other things, the fencing in of the port area, installing a traffic surveillance system and work on the fairway which is done to increase the traffic safety on the main fairway.

The investments that will be done in the port of **Oulu** are primarily investments in quays and a new crane will be purchased. The investments total EUR 17.3 million.

The port of **Kemi** is planning to start the construction of two new quays and the construction of their storage areas and their municipal engineering work in 2003. The privately owned companies are constructing a terminal storage building in 2001. The investments total EUR 15.6 million.

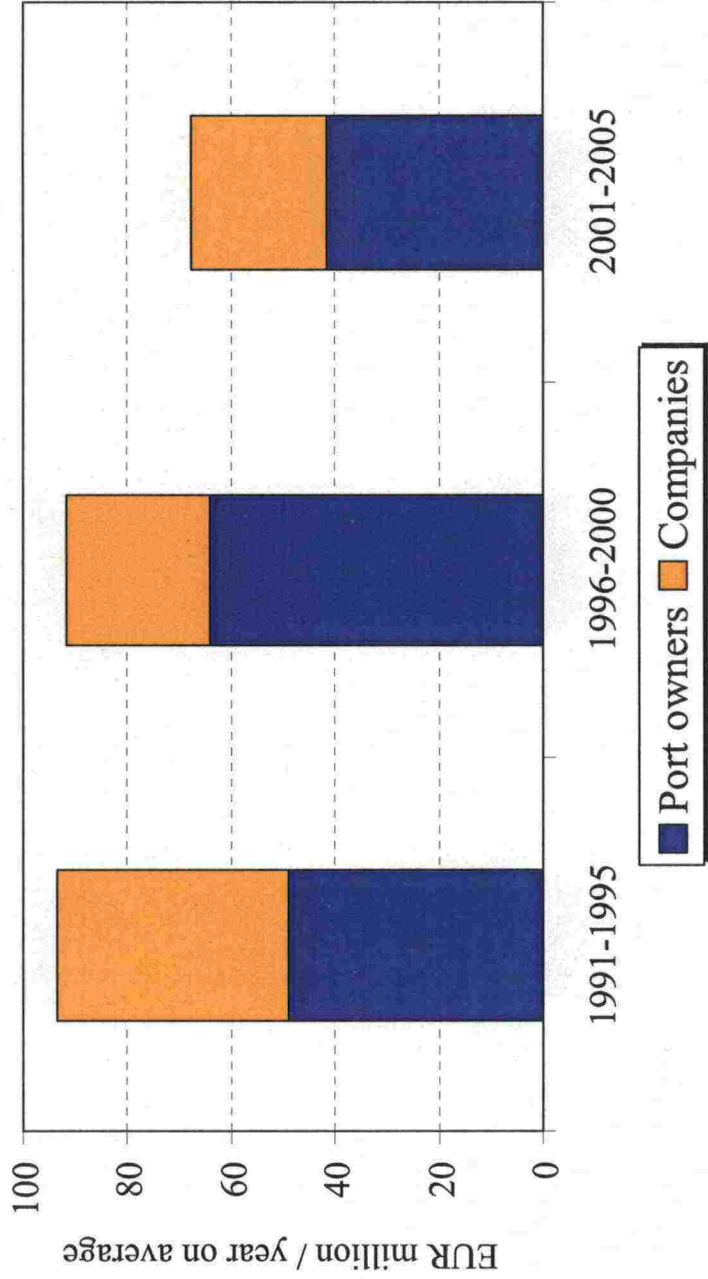
The amount of investments for the port of **Pori** totals EUR 11.9 million. Most of the investments are storage and cargo handling equipment investments made by the privately owned companies. The investments made by the port owner also focus on cargo handling equipment, a new container crane will be purchased in 2003. This is due to the fast growth in container traffic.

The port of **Hanko** will invest primarily in quays. In the year 2001, a quay and a passenger terminal were finished for the Superfast shipowner's passenger and car ferry traffic. It is also intended to repair one ro-ro berth and possibly renew another. The amount of investments total EUR 11.8 million. The privately owned companies' investments make more than half of this figure (mainly equipment investments).

The investments for the port of **Vaasa** total EUR 8.7 million. The investments are primarily focused on quays and cargo handling equipment. A new quay will be constructed in 2002-2003 for the needs of the cargo traffic. A privately owned company has purchased in 2001 a new crane that is especially designed to handle sawn timber. The port owner's plans also include remarkable cargo handling equipment investments towards the end of this period.

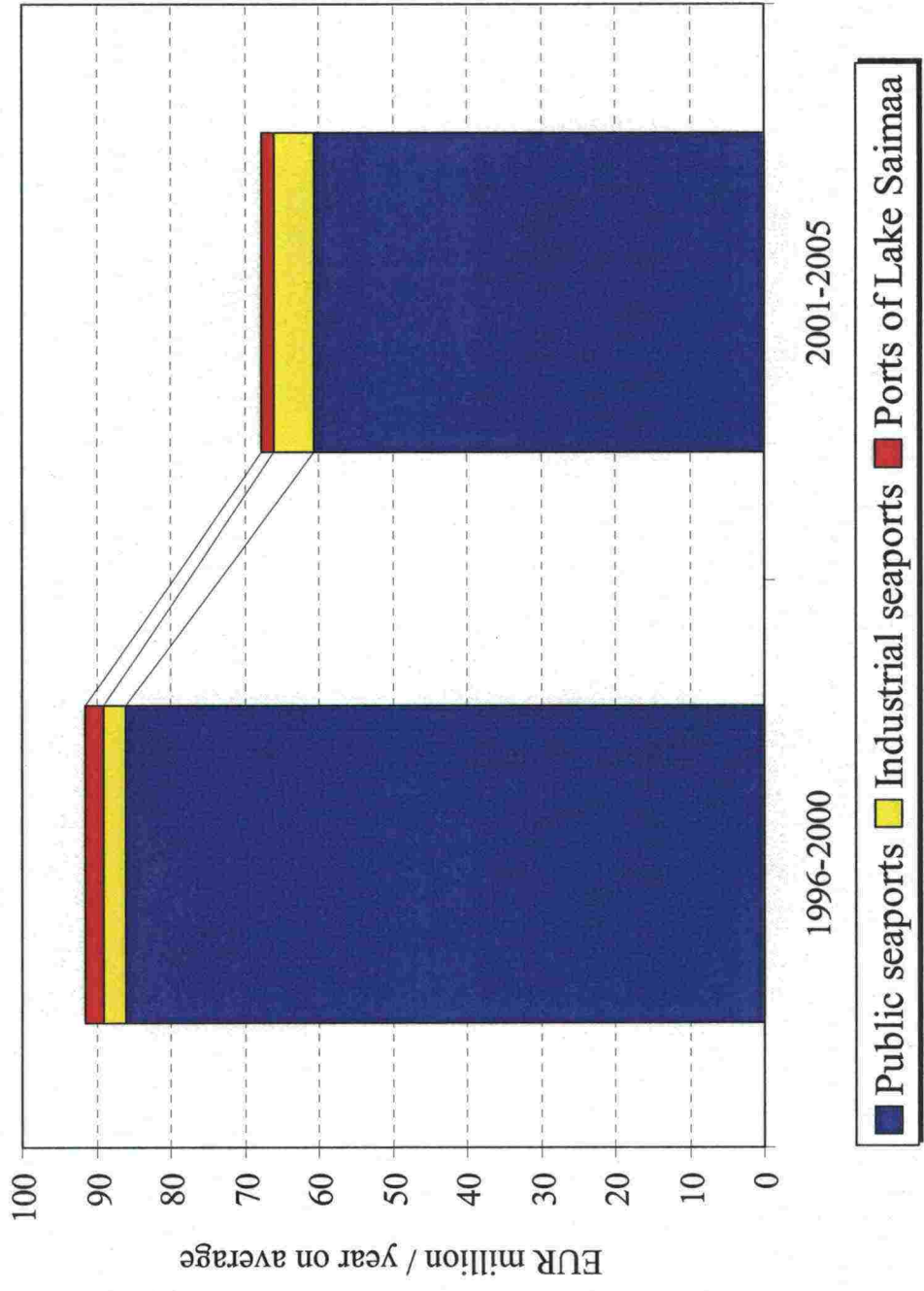
### Investments in Finnish ports in 1991-2005

Realized and planned, wholesale price index  
adjusted to the 2000 level



Source: FMA's port survey 2001

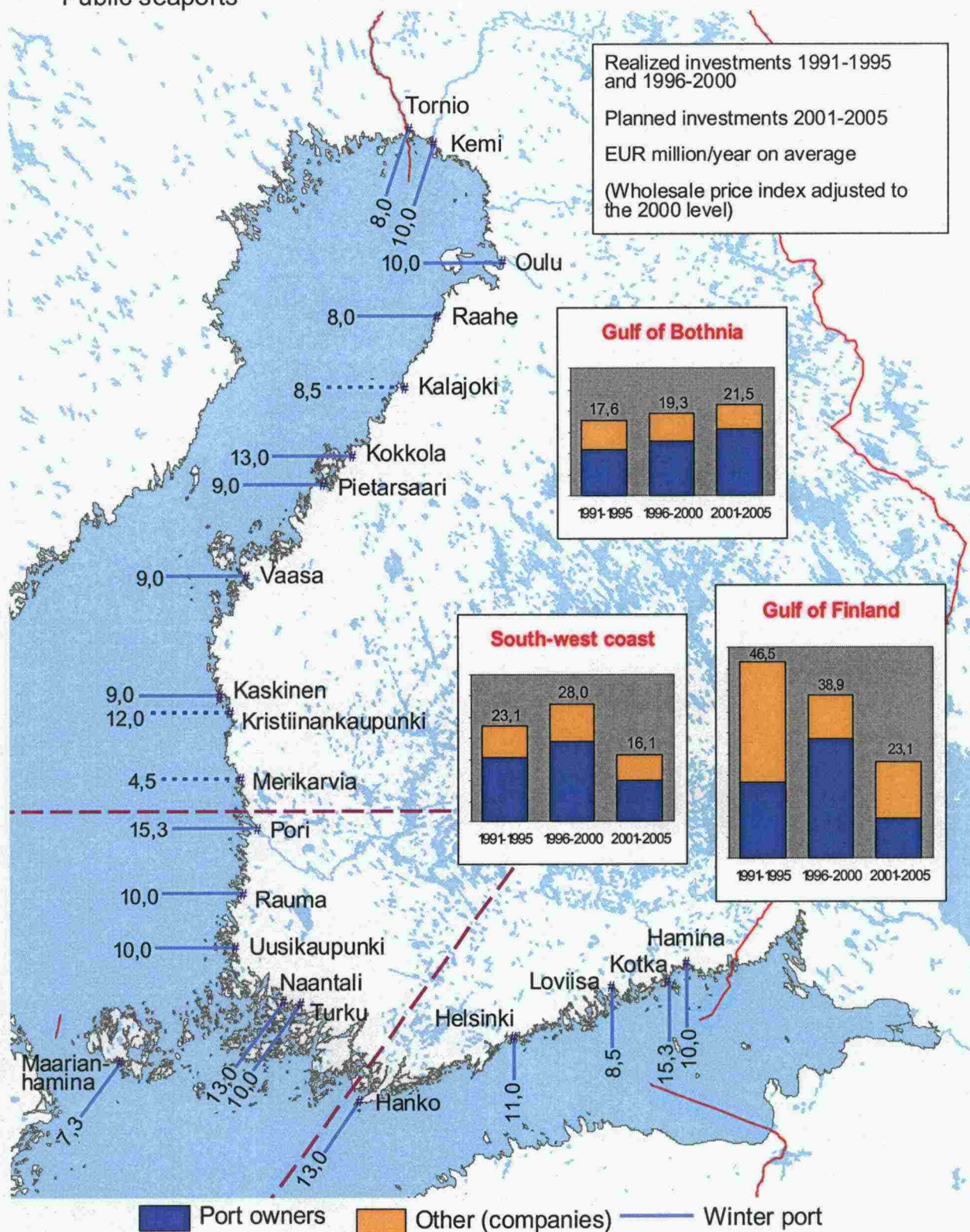
Investments by port category in 1996-2005  
Realized and planned



Source: FMA's port survey 2001



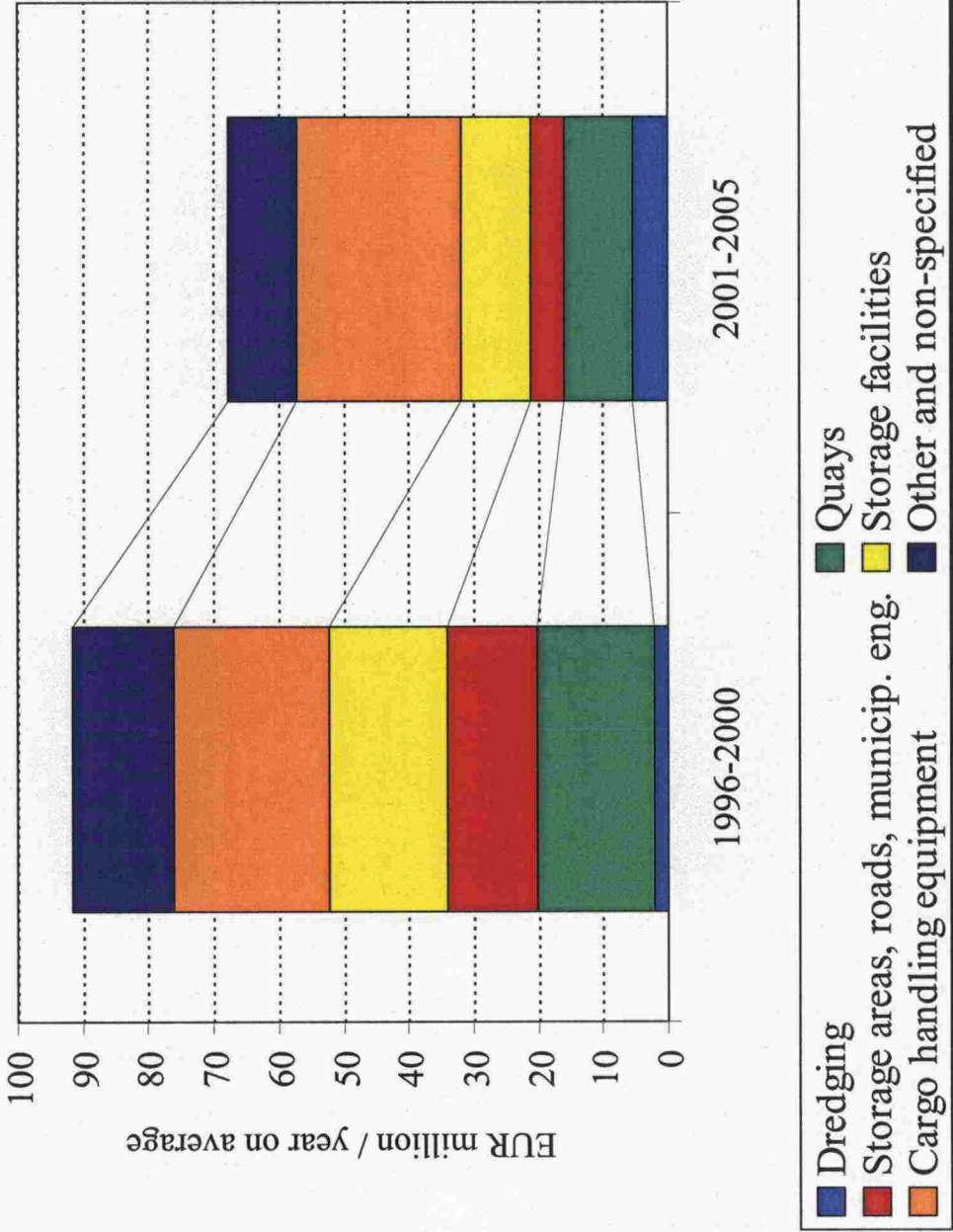
# Annex 3 REALIZED AND PLANNED INVESTMENTS BY COASTAL REGION 1991-2005 Public seaports



Source: FMA's port survey 2001



Investments by type of investment 1996-2005  
Realized and planned



Source: FMA's port survey 2001

**Annex 5. Investments in Finnish ports in 1996-2000 (EUR million)**  
(wholesale price index adjusted to the 2000 level)

	TYPE OF INVESTMENT						Total
	Dredging works	Quays	Storage areas, roads, municip. engineering	Storage facilities	Cargo handling equipment	Other and non-specified	
<b>PORT OWNER:</b>							
Gulf of Finland public seaports	0,20	24,92	46,79	12,97	21,54	36,11	142,53
Southwest coast public seaports	2,36	39,74	10,00	2,16	22,14	19,09	95,49
Gulf of Bothnia public seaports	5,97	22,73	9,44	12,96	3,30	10,39	64,79
Industry seaports	2,17	2,27	0,41	5,85	1,58	0,14	12,42
Ports of Lake Saimaa	0,05	0,54	2,28	0,58	0,04	1,04	4,53
	10,75	90,20	68,92	34,52	48,60	66,77	319,76
<b>COMPANY:</b>							
Gulf of Finland public seaport				21,91	26,65	3,55	52,11
Southwest coast public seaports				16,47	22,79	5,17	44,43
Gulf of Bothnia public seaports				12,34	17,49	1,64	31,47
Industry seaports				0,00	2,22	0,00	2,22
Ports of Lake Saimaa				5,59	1,84	0,43	7,86
				56,31	70,99	10,79	138,09
<b>TOTAL:</b>							
Gulf of Finland public seaport	0,20	24,92	46,79	34,88	48,19	39,66	194,64
Southwest coast public seaports	2,36	39,74	10,00	18,63	44,93	24,26	139,92
Gulf of Bothnia public seaports	5,97	22,73	9,44	25,30	20,79	12,03	96,26
Industry seaports	2,17	2,27	0,41	5,85	3,80	0,14	14,64
Ports of Lake Saimaa	0,05	0,54	2,28	6,17	1,88	1,47	12,39
	10,75	90,20	68,92	90,83	119,59	77,56	457,85
<b>ALL TOTAL</b>							

**Annex 6. Planned investments in Finnish ports in 2001-2005 (EUR million)**

	TYPE OF INVESTMENT						Total
	Dredging works	Quays	Storage areas, roads, municip. engineering	Storage facilities	Cargo handling equipment	Other and non-specified	
<b>PORT OWNER:</b>							
Gulf of Finland public seaports	14,30	9,75	10,41	0,00	6,88	6,16	47,50
Southwest coast public seaports	5,30	7,48	5,46	2,14	12,83	17,41	50,62
Gulf of Bothnia public seaports	6,73	24,37	7,64	10,09	15,78	13,32	77,93
Industry seaports	0,84	7,85	0,30	0,00	17,79	0,00	26,78
Ports of Lake Saimaa	0,12	2,91	1,53	0,74	0,00	0,08	5,38
	27,29	52,36	25,34	12,97	53,28	36,97	208,21
<b>COMPANY:</b>							
Gulf of Finland public seaport				26,05	38,48	3,35	67,88
Southwest coast public seaports				8,12	12,28	9,27	29,67
Gulf of Bothnia public seaports				6,50	20,06	2,93	29,49
Industry seaports				0,00	0,67	0,00	0,67
Ports of Lake Saimaa				0,87	1,82	0,17	2,86
				41,54	73,31	15,72	130,57
<b>TOTAL:</b>							
Gulf of Finland public seaport	14,30	9,75	10,41	26,05	45,36	9,51	115,38
Southwest coast public seaports	5,30	7,48	5,46	10,26	25,11	26,68	80,29
Gulf of Bothnia public seaports	6,73	24,37	7,64	16,59	35,84	16,25	107,42
Industry seaports	0,84	7,85	0,30	0,00	18,46	0,00	27,45
Ports of Lake Saimaa	0,12	2,91	1,53	1,61	1,82	0,25	8,24
<b>ALL TOTAL</b>	<b>27,29</b>	<b>52,36</b>	<b>25,34</b>	<b>54,51</b>	<b>126,59</b>	<b>52,69</b>	<b>338,78</b>